**6) CONVERTING PARAMETRIC EQUATIONS OF PARABOLA TO CARTESIAN FORM – by eliminating the variable.**

1) Find the Cartesian equation for parabolas defined by these parametric equations:

a)

substitute into

do not expand, leave in brackets, rearrange to make (the squared term)

the subject

so the vertex is (0, -1) and

b)

substitute into

do not expand, leave in brackets, rearrange to make (the squared

term) the subject

so the vertex is (2, 3) and

c)

substitute into

do not expand, leave in brackets, rearrange to make (the squared

term) the subject

so the vertex is (3, -1) and

d)

substitute into

do not expand, leave in brackets, rearrange to make (the squared

term) the subject

so the parabola is vertical with vertex (-3, 5), and .

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Worksheet: Achievement revision